

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (withdrawn) A method of screening compositions that comprise a compound-of-interest, which comprises:

- (a) preparing an array of substantially non-aqueous samples, wherein each sample in the array comprises a controlled amount of the compound-of-interest and a liquid excipient, and wherein at least two of the samples differ with respect to the liquid excipient they contain and/or the concentration of the compound-of-interest, and further wherein each sample has a concentration greater than about 1 mg/mL and a viscosity greater than about 100 centipoise;
- (b) using a positive displacement pump to dispense less than 250 microliters of an excipient with a viscosity of at least 100 centipoise;
- (c) identifying samples in the array wherein at least some of the compound-of-interest dissolved in the liquid excipient; and
- (d) ranking the identified samples.

Claim 2 (withdrawn) The method of claim 1, further comprising:

- (a) providing a plurality of liquid excipients and/or miscible combinations of liquid excipients;
- (b) preparing an array of substantially non-aqueous samples by contacting, for each sample, a controlled amount of the compound-of-interest with a liquid excipient or a miscible combination of liquid excipients obtained from the plurality, wherein at least two of the samples differ with respect to the liquid excipient or miscible combination of liquid excipients they contain and/or the concentration of the compound-of-interest, and wherein each sample has a concentration greater than about 1 mg/mL and a viscosity greater than about 100 centipoise; and

(c) identifying samples in the array wherein at least some of the compound-of-interest dissolved in the liquid excipient or combination of miscible liquid excipients.

Claim 3 (withdrawn) The method of claim 2 wherein the samples in the array that comprise decomposed or degraded compound-of-interest are excluded from the identified samples.

Claim 4 (withdrawn) The method of claim 2 wherein each of the samples is non-aqueous.

Claim 5 (withdrawn) The method of claim 2 wherein the samples are identified using HPLC, NMR, IR spectroscopy, UV-visible spectroscopy, Raman spectroscopy, visual imaging, or turbidity measurements.

Claim 6 (canceled)

Claim 7 (withdrawn) The method of claim 2 wherein the identified samples are ranked by the degree of decomposition or degradation of the compound-of-interest.

Claim 8 (withdrawn) The method of claim 2 wherein the identified samples are ranked by contacting each of the identified samples with a solution having a pH of from about 9.0 to about 1.0 to provide a set of modified identified samples, and determining how much compound-of-interest is dissolved in each of the modified identified samples.

Claim 9 (withdrawn) The method of claim 8 wherein the pH is from about 7.5 to about 5.0.

Claim 10 (withdrawn) The method of claim 9 wherein the pH from about 6.8 to about 5.5.

Claim 11 (withdrawn) The method of claim 2 wherein the identified samples are ranked by contacting each of the identified samples with a solution having a pH of from about 9.0 to about 1.0 to provide a set of modified identified samples, and determining a

characteristic of any undissolved compound-of-interest in each of the modified identified samples.

Claim 12 (withdrawn) The method of claim 11 wherein the pH is from about 7.5 to about 5.0.

Claim 13 (withdrawn) The method of claim 12 wherein the pH from about 6.8 to about 5.5.

Claim 14 (withdrawn) The method of claim 11 wherein the characteristic is average particle size, polymorph, crystal habit, or chemical purity.

Claim 15 (withdrawn) The method of claim 14 wherein the characteristic is determined using Raman spectroscopy, X-ray spectroscopy, powder X-ray diffraction, differential scanning calorimetry, thermogravimetric analysis, light scattering, microscopy, birefringence measurements, NMR, or HPLC.

Claim 16 (withdrawn) The method of claim 2 wherein the array comprises at least 94 samples.

Claim 17 (withdrawn) The method of claim 16 wherein the array comprises at least 380 samples.

Claim 18 (withdrawn) The method of claim 2 wherein the compound-of-interest is an active pharmaceutical agent.

Claim 19 (currently amended) A method of screening compositions that comprise a compound-of-interest, which comprises:

(a) preparing an array of substantially non-aqueous samples by using a positive displacement pump to dispense less than 250 microliters of a first liquid excipient with a viscosity greater than about 100 centipoise into at least a first well, using a positive

displacement pump to dispense less than 250 microliters of a second liquid excipient with a viscosity greater than about 100 centipoise and being different from said first liquid excipient into at least a second well and using a positive displacement pump to dispense less than 250 microliters of said first and second liquid excipients into at least a third well to form a mixture of said first and second liquid excipients in said at least third well, wherein each sample in the array comprises a controlled amount of the compound-of-interest and the liquid excipient, and wherein each sample has an amount of compound-of-interest greater than about 1 milligram per milliliter of liquid excipient with a viscosity greater than about 100 centipoise;

(b) identifying samples in the array wherein at least some of the compound-of-interest dissolved in the liquid excipient; ~~and~~

(c) ranking the identified samples by the amount of compound-of-interest dissolved to determine the synergistic effect of mixtures of excipients on the solubility of the compound-of-interest;

(d) further identifying samples wherein all of the compound-of-interest dissolved and thereby do not contain solid;

(e) contacting each of the identified solid-free samples with a liquid that simulates gastric fluids and analyzing the samples for one or more physical changes selected from the group consisting of precipitation, phase separation, suspension, emulsion and degradants; and

(f) ranking the samples based on the one or more physical changes.

Claim 20 (previously presented) The method of claim 19 wherein the samples in the array that comprise decomposed or degraded compound-of-interest are excluded from the identified samples.

Claim 21 (previously presented) The method of claim 19 wherein the array comprises at least 94 samples.

Claim 22 (previously presented) The method of claim 19 wherein the compound-of-interest is an active pharmaceutical agent.

Claim 23 (new) The method of claim 19, wherein the step (f) of ranking the samples based on the one or more physical changes comprises ranking the samples in the following order:

- (i) samples that remain free of precipitate;
- (ii) samples that provide a solution with separate phases or samples that contain a precipitate, suspension or emulsion; and
- (iii) samples that provide a solution that contains degraded compound-of-interest.

Claim 24 (new) The method of claim 23, further comprising the step of ranking the samples that contain a precipitate by the size of the particles of the precipitate, with the samples providing the largest particles of the precipitate ranked lowest.